

6/10/2016

CURRICULUM VITAE

NAME: Nicholas C. Wegner

ORGANIZATION: Department of Commerce
National Oceanic & Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center
8901 La Jolla Shores Drive
La Jolla, California 92037-1508
Phone: (858) 546-7080
Email: nick.wegner@noaa.gov

PRESENT POSITION: Research Fisheries Biologist

EDUCATION:

Ph.D. in Marine Biology, Scripps Institution of Oceanography (2009)
B.S. in General Biology, University of California, San Diego (2004)

EXPERIENCE:

2013-Present	Fisheries Research Biologist Southwest Fisheries Science Center National Marine Fisheries Service La Jolla, CA 92037
2013-Present	Lecturer Scripps Institution of Oceanography University of California, San Diego La Jolla, CA 92037
2012-2013	National Research Council Associate Southwest Fisheries Science Center National Marine Fisheries Service La Jolla, CA 92037
2010-2012	Associate Faculty Department of Biological Sciences

MiraCosta College
Oceanside, CA 92058

2009-2011 Postdoctoral Research Scholar
Scripps Institution of Oceanography
University of California, San Diego
La Jolla, CA 92037

RESEARCH INTERESTS:

Fish physiology, movements, behavior, ecology, and aquaculture

HONORS AND AWARDS:

Scholarships and Traineeships

- National Research Council Postdoctoral Research Associateship, National Academies of Sciences (2012-2013)
 - Achievement Rewards for College Scientists (ARCS) Scholarship, Los Angeles Chapter (2007-2009)
 - Sea Grant Traineeship (2004-2007)
 - Art Proceeds and Peterson Fellowship at the University of California, San Diego (2007)
 - Research Assistance Award, Amer. Inst. of Fisheries Research Biologists (2006)
 - California Diving & Aquatic Studies Scholarship (2005)

Presentation Awards

- Samuel H. Gruber Award for Best Student Presentation at the 24th Annual Meeting of the American Elasmobranch Society, Joint Meeting of Ichthyologists and Herpetologists (2008)
 - Haymet-Kennel Student Lecture Award at Scripps Institution of Oceanography (2007)
 - 58th Annual Tuna Conference Scholarship awarded by the National Marine Fisheries Service (2007)

PUBLICATIONS:

1. Sepulveda, C.A., **Wegner, N.C.**, Bernal, D., and Graham, J.B. (2005). The red muscle morphology of the thresher sharks (family Alopiidae). *J. Exp. Biol.* 208: 4255-4261.
 2. **Wegner, N.C.**, Sepulveda, C.A., and Graham, J.B. (2006). Gill specializations in high-performance pelagic teleosts, with reference to striped marlin (*Tetrapturus audax*) and wahoo (*Acanthocybium solandri*). *Bull. Mar. Sci.* 79: 747-760.

3. Graham, J.B., Lee, H.L., and **Wegner, N.C.** (2007). Transition from water to land in an extant group of fishes: Air breathing and the acquisition sequence of adaptations for amphibious life in oxudercine gobies. In *Fish Respiration and Environment* (M.N. Fernandes *et al.*, eds.) Science Publishers: Enfield. p. 255-288.
4. Seymour, R.S., **Wegner, N.C.**, and Graham, J.B. (2008). Body size and the air-breathing organ of the Atlantic tarpon *Megalops atlanticus*. *Comp. Biochem. Physiol.* 150A: 282-287.
5. **Wegner, N.C.**, Sepulveda, C.A., Bull, K.B., and Graham, J.B. (2010). Gill morphometrics in relation to gas transfer and ram ventilation in high-energy demand teleosts: Scombrids and billfishes. *J. Morph.* 271: 36-49.
6. Graham, J.B. and **Wegner, N.C.** (2010). Breathing air in water and in air: The air-breathing fishes. In *Respiratory Physiology of Vertebrates: Life With and Without Oxygen* (G.E. Nilsson ed.) Cambridge University Press: Cambridge. p. 174-221.
7. Cartamil, D., **Wegner, N.C.**, Kacev, D., Ben-Aderet, N., Kohin, S., and Graham, J.B. (2010). Movement patterns and nursery habitat of the juvenile common thresher shark *Alopias vulpinus* in the Southern California Bight. *Mar. Ecol. Prog. Ser.* 404: 249-258.
8. Cartamil, D., **Wegner, N.C.**, Aalbers, S., Sepulveda, C.A., Baquero, A., and Graham, J.B. (2010). Diel movement patterns and habitat preferences of the common thresher shark *Alopias vulpinus* in the Southern California Bight. *J. Mar. Fresh. Res.* 61: 596-604.
9. **Wegner, N.C.** and Graham, J.B. (2010). George Hughes and the history of fish ventilation: From Du Verney to the present. *Comp. Biochem. Physiol.* 157A: 1-6.
10. **Wegner, N.C.**, Sepulveda C.A., Olson, K.R., Hyndman, K.A., and Graham, J.B. (2010). Functional morphology of the gills of the shortfin mako, *Isurus oxyrinchus*, a lamnid shark. *J. Morph.* 271: 937-948.
11. Sepulveda, C.A., Aalbers, S.A., Ortega-Garcia, S., **Wegner, N.C.**, and Bernal, D. (2011). Depth distribution and temperature preferences of wahoo (*Acanthocybium solandri*) off Baja California Sur, Mexico. *Mar. Biol.* 158: 917-926.
12. Cartamil, D., Sepulveda, C.A., **Wegner, N.C.**, Aalbers, S.A., Baquero, A., and Graham, J.B. (2011). Archival tagging of subadult and adult common thresher sharks (*Alopias vulpinus*) off the coast of southern California. *Mar. Biol.* 158: 935-944.
13. **Wegner, N.C.** (2011). Gill respiratory morphometrics. In: *Encyclopedia of Fish Physiology: From Genome to Environment* (A.P. Farrell *et al.*, eds.) Elsevier Press: San Diego. p. 803-811.
14. Satora, L. and **Wegner, N.C.** (2012). Reexamination of the Byczkowska-Smyk gill surface area data for European teleosts with new measurements on the pikeperch, *Sander lucioperca*. *Rev. Fish Biol. Fisheries* 22:1-9

15. **Wegner, N.C.**, Lai, N.C., Bull, K.B., and Graham, J.B. (2012). Oxygen utilization and the branchial pressure gradient during ram ventilation in the shortfin mako, *Isurus oxyrinchus*: Is lamnid shark-tuna convergence constrained by elasmobranch gill morphology? *J. Exp. Biol.* 215: 22-28.
16. **Wegner, N.C.** and Cartamil, D.P. (2012). Effects of prolonged entanglement in discarded fishing gear with substantive biofouling on the health and behavior of an adult shortfin mako shark, *Isurus oxyrinchus*. *Mar. Poll. Bull.* 64: 391-394.
17. **Wegner, N.C.**, Sepulveda, C.A., Aalbers, S.A., and Graham, J.B. (2013). Structural adaptations for ram ventilation: Gill fusions in scombrids and billfishes. *J Morphol.* 274: 108–120.
18. Nosal, A.P., Cartamil, D.P., Long J.W., Lührmann M., **Wegner, N.C.**, and Graham, J.B. (2013). Demographic composition, movement patterns, and putative causes of leopard sharks (*Triakis semifasciata*) aggregating in a marine reserve along the open coast of southern California, USA. *Env. Biol. Fish.* 96: 865-878.
19. Jew C.J., **Wegner, N.C.**, Yanagisuru, Y., Tresguerres, M., and Graham, J.B. (2013, cover article). Atmospheric oxygen levels affect mudskipper terrestrial performance: Implications for early tetrapods. *Int. Comp. Biol.* 53: 248-257.
20. Graham, J.B., **Wegner, N.C.**, Miller, L.A., Jew, C.J., Lai, N.C., Berquist, R.M., Frank, L.R., and Long, J.A. (2014). Spiracular air breathing in polypterid fishes and its implications for aerial respiration in stem tetrapods. *Nature Comm.* DOI: 10.1038/ncomms4022.
21. Nosal, A.P., Caillat, A., Kisfaludy, E.K., Royer, M.A., and **Wegner, N.C.** (2014). Aggregation behavior and seasonal philopatry in male and female leopard sharks (*Triakis semifasciata*) along the open coast of southern California, USA. *Mar. Ecol. Prog. Ser.* 499: 157-175.
22. Wootton, T.P., Sepulveda, C.A., **Wegner, N.C.** (2015). Gill morphometrics of the thresher sharks (genus *Alopias*): Correlation of gill dimensions with aerobic demand and environmental oxygen. *J. Morphol.* 276: 589-600.
23. **Wegner, N.C.**, Snodgrass, O.E., Dewar, H., Hyde, J.R. (2015). Whole-body endothermy in a mesopelagic fish, the opah, *Lampris guttatus*. *Science.* 348: 786-789.
24. **Wegner, N.C.** (2016). Elasmobranch gill structure. In: *Fish Physiology Volume 34A: Physiology of Elasmobranch Fishes: Structure and Interaction with Environment* (R.E. Shadwick, *et al.*, eds). Academic Press: Amsterdam p. 101-151.
25. Cartamil, D, Wraith, J., **Wegner, N.C.**, Kacev, D., Lam, C., Santana-Morales, O., Sosa-Nishizaki, O., Escobedo-Olvera, M., Kohin, S., Graham, J.B., and Hastings, P. (2016)

Movements and distribution of juvenile common thresher sharks (*Alopias vulpinus*) in Pacific coast waters of the USA and Mexico. *Mar. Ecol. Prog. Ser.* 548: 153-163.

26. Graham, J.B., Jew, C.J., and **Wegner, N.C.** (In press). Modeling variable phanerozoic oxygen effects on physiology and evolution. *In Hypoxia: Translation in Progress* (R.C. Roach *et al.*, eds.) Springer: New York.

OTHERS:

1. Dickson, K.A., Baird, T.A., **Wegner, N.C.** (2012). Obituary: Jeffrey B. Graham: 26 November 1942 – 8 December 2011. *J. Exp. Biol.* 215: 4235-4236.
2. Baird, T.A., Dickson, K.A., **Wegner, N.C.** (2013). Jeffrey Brent Graham (1941-2011). *Copeia* 2013: 346-350.